



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/786,783

02/25/2004

Seishi Ohmori

P2070US

3719

8968 7590 07/11/2007
DRINKER BIDDLE & REATH LLP
ATTN: PATENT DOCKET DEPT.
191 N. WACKER DRIVE, SUITE 3700
CHICAGO, IL 60606

EXAMINER

WANG, KENT F

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

07/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/786,783

Applicant(s)

OHMORI, SEISHI

Examiner

Kent Wang

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 06/01/2004 and 06/20/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The reference listed on the disclosure statement (IDS) submitted on 06/01/2004 and 06/20/2005 have being considered by the examiner (see attached PTO 1449).

Drawings

3. The drawing is objected to under 37 CFR 1.83(a) because it fail to show element "608" in Figure 6 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and

Art Unit: 2622

appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2 and 5-6 are rejected under 35 U.S.C. § 102(b) as being anticipated by Chiang (US 6,809,759).

Regarding claim 1, Chiang discloses an digital camera system comprising:

– a main body (a camera housing 11, Fig 1) that comprises:

Art Unit: 2622

- an optical system (a lens 12, Fig 1) including a plurality of lenses to optically process light from a subject (the lens 12 can have added functionality to change the focused image, such as zoom capabilities, and an iris aperture to change both the exposure and depth of field characteristics of the image; see col. 2 lines 57-65) ,
- an optoelectric converter (CCD 30, Fig 3) converting the light from the optical system into an electrical analog image signal (see col. 2, line 66-67),
- an analog-to-digital converter (an A/D converter 34, Fig 3) converting the analog image signal of the optoelectric converter into a digital image signal (col. 3 lines 3-4),
- a digital signal processor (a processor 38, Fig 3) processing the digital image signal from the analog-to-digital converter (see col. 2, lines 37-40), and
- a wireless communication interface (Bluetooth module 40, Fig 3);
- and a user module (remote control 20, Fig 3) that comprises:
 - a wireless communication interface (Bluetooth module 50, Fig 3), which corresponds to the wireless communication interface of the main body,
 - a user input unit (a control panel 28, Fig 3),
 - a display device (LCD 22, Fig 3), and
 - a controller (controller 58, Fig 3), wherein a digital image signal of the digital signal processor may be transmitted to the user module through

the wireless communication interface (40 and 50, Fig 3) and displayed on the display device (22, Fig 3) of the user module (20, Fig 3), and a user input signal input through the user input unit (28, Fig 3) of the user module may be transmitted to the digital signal processor through the wireless communication interface and processed by the digital signal processor (38, Fig 3) (see col. 3, lines 31-38).

Regarding claim 2, Chiang discloses a digital camera system wherein the user module is connectable to and separable (detachably) from the main body (col. 2, lines 31-33),

- the main body (11, Fig 3) further comprises a wired communication interface (physical electrical contact, see col. 4, lines 2-6), and
- the user module (20, Fig 3) further comprises a wired communication interface that corresponds to the wired communication interface of the main body (physical electrical contact, see col. 4, lines 2-6), wherein the digital image signal of the digital signal processor may be transmitted to the user module through the wired communication interface, and wherein the user input signal input through the user input unit (28, Fig 3) of the user module may be transmitted to the digital signal processor through the wired communication interface (the contacts permit the control panel 28 to control the operations of the digital camera 10) (see col. 4, lines 9-11).

Regarding claim 5, Chiang discloses the digital image signal of the digital signal processor (38, Fig 3) is input to the controller (58, Fig 3) of the user module (20, Fig 3) through the communication interfaces (40 and 50, Fig 3) of

Art Unit: 2622

the main body and the user module and is controlled by the controller (58, Fig 3) of the user module to be input to and displayed on the display device (22, Fig 3) of the user module (the controller 58 then causes the digital image to be shown on the LCD 22) (col. 3, lines 39-59).

Regarding claim 6, Chiang discloses the user input signal is input through the user input unit (28, Fig 3) of the user module (20, Fig 3) to the controller (58, Fig 3) of the user module, then transmitted to the digital signal processor through the communication interfaces (40 and 50, Fig 3) of the user module and the main body, and then processed by the digital signal processor (38, Fig 3) (see col. 3, lines 39-59).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 7-13 and 16-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Chiang in view of Mizutani, US 7,095,982.

Regarding claim 13, Chiang discloses a digital camera system comprising:

- a main body (camera housing 11, Fig 1) that comprises
 - an optical system (lens 12, Fig 1) including a plurality of lenses to optically process light from a subject,

Art Unit: 2622

- an optoelectric converter (CCD 30, Fig 3) converting the light from the optical system into an electrical analog image signal,
- an analog-to-digital converter (A/D converter 34, Fig 3) converting the analog image signal of the optoelectric converter into a digital image signal,
- a digital signal processor (processor 38, Fig 3) processing the digital image signal from the analog-to-digital converter, and
- a wireless communication interface (Bluetooth module 40, Fig 3);
- and a user module (remote control 20, Fig 3) that comprises
 - a wireless communication interface (Bluetooth module 50, Fig 3), which corresponds to the wireless communication interface of the main body,
 - a user input unit (control panel 28, Fig 3),
 - a display device (LCD 22, Fig 3),
 - a controller (controller 58, Fig 3), wherein a digital image signal of the digital signal processor (38, Fig 3) may be transmitted to the user module (20, Fig 3) through the wireless communication interface (40 and 50) and displayed on the display device (22, Fig 3) of the user module, and a user input signal input through the user input unit (28, Fig 3) of the user module may be transmitted to the digital signal processor through the wireless communication interface and processed by the digital signal processor, wherein the user module is

connectable to and separable (detachably; col. 2 lines 31-33) from the main body,

- the main body further comprises a wired communication interface (physical electrical contacts, col. 4, lines 2-6), and
- the user module further comprises a wired communication interface that corresponds to the wired communication interface of the main body (physical electrical contacts, col. 4, lines 2-6), wherein the digital image signal of the digital signal processor may be transmitted to the user module through the wired communication interface, and wherein the user input signal input through the user input unit of the user module may be transmitted to the digital signal processor through the wired communication interface (col. 2, lines 1-11).

Chiang does not explicitly disclose the user module of the digital camera system comprising a microphone, an analog-to-digital converter, a digital-to-analog converter, and a speaker. Mizutani discloses a user module (communication apparatus 300, Fig 2) of the digital camera system (image pick up apparatus 100, Fig 2) comprising a microphone (310, Fig 4), an analog-to-digital converter (312, Fig 4), a digital-to-analog converter (316, Fig 4), and a speaker (318, Fig 4) (see col. 7, lines 47-59 of Mizutani).

Chiang and Mizutani are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of the ordinary skill in the art to use Mizutani's microphone, analog-to-digital converter, digital-to-analog converter, and speaker in Chiang's camera

Art Unit: 2622

system. The suggestion/motivation would be to perform proper communication in accordance with the predetermined status of the communication apparatus; e.g. the speaker converts the electrical signal into an audio signal and the memory stores a sounds input via the microphone (see Mizutani col. 2 lines 44-47 and col. 8, lines 1-12).

Regarding claim 7, Mizutani discloses a user module further comprises a microphone (310, Fig 4) and an analog-to-digital converter (312, Fig 4; col. 7, lines 47-59).

Regarding claim 8, Mizutani discloses an audio signal of the microphone is input to the controller of the user module (300, Fig 4) through the analog-to-digital converter (312, Fig 4), then transmitted to the digital signal processor through the communication interfaces (communication means 326, Fig 4) of the user module and the main body (see col. 3, lines 39-52).

Regarding claim 9, Mizutani discloses the audio signal is stored in a recording medium (memory 320, Fig 4) by the digital signal processor (see col. 8, lines 2-8).

Regarding claim 10, Mizutani discloses the user module (300, Fig 4) further comprises a digital-to-analog converter (316, Fig 4) and a speaker (318, Fig 4) (see col. 7, lines 47-59).

Regarding claim 11, Mizutani discloses an audio signal stored in the recording medium (memory 320, Fig 4) is transmitted by the digital signal processor through the communication interfaces (communication means 326, Fig 4) of the main body and the user module to the controller (communication system

Art Unit: 2622

control circuit 350, Fig 4) of the user module (300, Fig 4) and then output through the digital-to-analog converter (316, Fig 4) and the speaker (318, Fig 4) by the controller (350, Fig 4) (see figure 4 and col. 8, lines 41-62).

Regarding claim 12, Mizutani discloses the digital image signal of the digital signal processor is input to the controller (350, Fig 4) of the user module (300, Fig 4) through the communication interfaces (Bluetooth communication means 330, Fig 4) of the main body and the user module and is controlled by the controller of the user module to be input to and displayed on the display device (360, Fig 4) of the user module, and wherein the user input signal is input through the user input unit (362, Fig 4) of the user module to the controller (350) of the user module, then transmitted to the digital signal processor through the communication interfaces (326, 330, Fig 4) of the user module and the main body, and then processed by the digital signal processor (see figure 4 and col. 8, lines 41-62).

Regarding claims 16, 17, 18, 19, and 20, these claims recite same limitations as claims 5, 6, 8, 9, and 11, respectively. Thus they are analyzed and rejected as previously discussed with respect to claims 5, 6, 8, 9, and 11 above.

9. Claims 3 and 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Chiang in view of Wakui, US 6,256,060.

Regarding claim 3, Chiang discloses a previewing system has a remote control that is detachably fixed to an image-capturing device. Chiang does not explicitly disclose a slot into which the user module is inserted. Wakui discloses a

Art Unit: 2622

slot (remote controller slot 37, Fig 1) into which the user module (a remote controller 3, Fig 2) is inserted, and when the user module is inserted into the slot, the wired communication interface (connector 57, Fig 3) of the user module is connected to the wired communication interface (connector 33, Fig 1) of the main body (see col. 3, lines 40-45).

Chiang and Wakui are analogous art because they are from the same field of endeavor for digital camera having separable user module. At the time of the invention, it would have been obvious to a person of the ordinary skill in the art to use Wakui's teaching of the mainbody having a slot in Chiang's camera. The suggestion/motivation would be to enable a signal transmission device of the detachable remote controller is utilized for transmitting the image data to an external device and optionally, the remote controller may further include a second signal receiving device, which receives signal transmitted from another external device (abstract and col. 2, lines 12-14).

Regarding claim 4, Wakui discloses that when the user module is separated from the slot, the digital signal processor and the controller of the user module communicate with each other through the wireless communication interface of the main body and the wireless communication interface of the user module (use of an infrared communication method; see col. 3, lines 57-67).

10. Claims 14-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Chiang in view of Mizutani as applied to claim 13, and further in view of Wakui.

Regarding claims 14 and 15, these claims recite same limitations as claims 3-4, respectively. Thus they are analyzed and rejected as previously discussed with respect to claims 3-4 above.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Saito et al. (US 6,525,767) disclose an electronic still camera which is able to substantially lessen the amount of trouble of inserting and drawing a PC card during photographing or when image data are transferred to a host computer such as a laptop computer, and which is able to increase the number of photographing.
- Pyle et al. (US 7,068,306) disclose a method involves training an image capture system with a proxy based remote control mechanism, to respond to a command received from a foreign remote control.
- Uchiyama et al. (US 6,525,715) disclose a invention relates to a portable information acquisition device that displays acquired information and stores the acquired information.

Inquiries

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kent Wang whose telephone number is 571-270-1703. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

Art Unit: 2622

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc Yen Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-270-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kent Wang
26 June 2007



NGOC YEN VU
SUPERVISORY PATENT EXAMINER